

AMENDMENTS TO THE CLAIMS

Claims 1-3. (Cancelled)

4. (Currently Amended) ~~The optical module according to claim 1, wherein~~ An optical module comprising:

a housing having a lower casing integrating with a receptacle and a mount, an upper casing engaged with the lower casing, and a cover for covering the upper casing;

a block mounted on the lower casing, the block further includes including a center wall and a pair of side walls disposing the center wall therebetween and a mounting portion, the center wall providing the a substrate supporting portion and each of the pair of side walls providing the a substrate pressing portion;

a optical sub-assembly mounted on the block and optically coupled with an optical connector mated with the receptacle; and

a substrate mounted on the mount of the lower casing and supported by the block, the substrate being electrically connected to the optical sub-assembly,

wherein the block supports the optical subassembly in the mounting portion and the substrate by sandwiching between the substrate supporting portion and the substrate pressing portion to define relative positions between the block, the optical sub-assembly and the substrate.

5. (Currently Amended) ~~The optical module according to claim 14,~~ An optical module comprising:

a housing having a lower casing integrating with a receptacle and a mount, an upper casing engaged with the lower casing, and a cover for covering the upper casing;

a block mounted on the lower casing and including a mounting portion;

an optical sub-assembly mounted on the mounting portion and optically coupled with an optical connector mated with the receptacle; and

a substrate mounted on the mount of the lower casing and supported by the block, the substrate being electrically connected with the optical sub-assembly,

wherein the receptacle has a surface with an opening for abutting against a surface of the block with an opening corresponding to the opening provided in the surface of the receptacle, the optical sub-assembly being inserted into the opening of the surface of the receptacle and the opening of the block, and

wherein the lower casing has a projection on the mount for holding the block between a side face of the projection and the surface of the receptacle such that the surface of the block abuts against the surface of the receptacle.

6. (Currently Amended) The optical module according to claim 14 5, wherein the block provides a first cutout, the lower casing provides a second cutout, and the upper casing provides first and second protrusions for engaging with the first and second cutouts, respectively such that the surface of the block abuts against the surface of the receptacle.

7. (Previously Presented) The optical module according to claim 6, wherein the block includes a center wall and a pair of side walls, the side walls disposing the center wall therebetween providing the first cutout, the mounting portion being disposed between the center wall and one of side walls.

8. (Previously Presented) The optical module according to claim 6, wherein the second cutout is formed in a side wall of the lower casing.

9. (Currently Amended) The optical module according to claim 14 5,

wherein the upper casing includes a projection and the block includes a center wall with a cutout,

the projection being in contact with a cross section of the cutout such that the surface of the block abuts against the surface of the receptacle.

10. (Currently Amended) The optical module according to claim ~~14~~ 5, further comprising a holder for holding the optical sub-assembly by surrounding the optical sub-assembly and pressing the optical sub-assembly to the block.

11. (Previously Presented) The optical module according to claim 4, wherein the block is made of a resin.

Claims 12 and 14. (Cancelled)

15. (Previously Presented) An optical module comprising:
an optical sub-assembly having leads and mounted with an optical device;
a substrate electrically connected to the leads of the optical sub-assembly;
a resin block including a front wall with an opening to insert one end of the optical sub-assembly thereinto, a center wall with a substrate supporting portion and a first cutout, and a pair of side walls disposing the center wall therebetween, each of the side walls providing a substrate pressing portion for pressing the substrate and a second cutout, the substrate supporting portion and the substrate pressing portion fixing the substrate by sandwiching the substrate therebetween;

a lower casing with a receptacle and a mount receiving an optical connector holding an optical fiber and providing a surface with an opening for inserting the one end of the optical sub-assembly thereinto, the mount mounting the substrate and providing a projection for sandwiching the block with the surface of the receptacle such that the front wall of the block

abuts against the surface of the receptacle, the lower casing providing a third cutout in a side wall thereof; and

an upper casing providing a first protrusion to engage with the first cutout provided in the side wall of the resin block, a second protrusion to engage with the third cutout provided in the side wall of the lower casing, and a third protrusion to engage with the second cutout provided in the center wall of the resin block such that the front wall of the resin block abuts against the surface of the receptacle.

16. (Previously Presented) A method for manufacturing an optical module including an optical sub-assembly, a block, a substrate, a lower casing and an upper casing, the method comprising steps of:

(a) mounting the optical sub-assembly on the block such that a leading end of the optical sub-assembly is inserted into an opening provided in a front wall of the block;

(b) securing the substrate to the block such that a substrate supporting portion provided in the block and a substrate pressing portion provided in the block sandwiches the substrate therebetween;

(c) electrically connecting the substrate with leads of the optical subassembly;

(d) installing the block mounting the optical sub-assembly electrically connected with the substrate in the lower casing including a receptacle such that the leading end of the optical subassembly inserted into the opening of the block enters an opening formed in a surface of the receptacle; and

(e) assembling the upper casing with the lower casing such that the front wall of the block abuts against the surface of the receptacle.

17. (Currently Amended) The optical module according to ~~claims 14~~ claim 5,

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wherein the block is made of a resin.

Claims 18 - 20. (Cancelled)